

Remarks

The offending citation to a web page has been deleted from the specification.

New claims 14 and 19 have been provided.

These claims do not add new matter, as may be seen from a review of Fig. 5 as filed, in which two switches in the "B" row are closed (black circles) so that the input (from Disk 1) is connected not only to the output 1 (destined for Disk 2) but is also connected to the output 7 (destined for CF-Analyzer 1).

This may also be seen in a second place in Fig. 5 as filed, in which two switches in the "C" row are closed (black circles) so that the input (from Disk 2) is connected not only to the output 2 (destined for Repeater 166) but is also connected to the output 6 (destined for CF-Analyzer 2).

The configuration means is, for example, described in the specification at page 26, lines 4-12:

Communication between the host CPU (82) and the CPS (30) via the SES processor (7) allows the configuration of the on/off states of the different switches in the CPS matrix (30) to be programmed by the user. Such configuration of the CPS (30) thereby determines the connection sequence of nodes in the FC-AL and the structure and placement of the branching connections for FC-Analysers on the FC-AL. Configuration of the CPS (30) by the user is also enabled by software running on the host CPU (82) (for example Vision as described above).

The undersigned is unable to find such apparatus in cited reference US Pat. No. 6,614,796 to Black et al. ("Black"). Black instead appears to the undersigned to teach away from apparatus with such capability (that is, it teaches away from activating two switches in the same input row to pass information to two outputs). Black's Fig. 5 (cited by the Examiner) seems to teach only a one-to-one connection of fibre channel devices.

The undersigned is likewise unable to find such apparatus with such a configuration means in cited reference US Pat. No. 6,185,203 to Berman ("Berman"). Berman mentions at col. 10, lines 8-11 a matrix switch, but it is not clear to the undersigned whether this matrix switch is able to pass fibre channel data directly or whether it only passes data that is elsewhere encapsulated in fibre channel data. Even if the matrix switch of Berman were shown to be able to pass fibre channel data, the undersigned is unable to find anywhere in Berman a configuration means to connect one input to two outputs at the same time.

As is taught in the present application, this one-to-two capability offers benefits such as the ability to insert a fibre channel analyzer without adding latency to a fibre channel loop, as is mentioned in the specification at page 26, line 32 to page 27, line 2:

The advantages of this method of connecting the FC-AL analyser (70) and FC-AL nodes via the CPS (30) is that firstly it is possible for the user to selectively place the FC-AL analyser (70) on the FC-AL loop without contributing to the latency of the FC-AL.

If Black or Berman had provided such a one-to-two capability in a configuration means (and the undersigned is not able to find this capability in Black or Berman) it would be expected that Black or Berman would have mentioned the (now known as taught in the present invention) benefits of such a configuration means. So far as the undersigned can discern, they do not.

New claim 15 is provided. It is not adding new matter. As one example in the specification as filed, the first of the N inputs can be input B in Fig. 5, the second one of the M outputs can be output 1, and the third one of the M outputs can be output 7. The first fibre channel device can be disk 1, and the second fibre channel device can be disk 2, while the fibre channel analyzer can be FC-Analyzer 1.

New claims 20 and 21 are provided. They do not add new matter. As one example in the specification as filed, the second of the matrix outputs can be output 7 of Fig. 5, the first of the matrix outputs can be output 1, and the matrix input can be input B. The first device can be disk 1 and the second device can be disk 2.

New claims 16, 17 and 18 are provided. They do not add new matter. As stated in the specification as filed at page 22, lines 17-24,

A cross-point switch (or cross-bar switch) (CPS) comprises a matrix of switches connected by signal lines, thereby creating a switching device with a fixed number of inputs and outputs. A CPS (30) can be constructed according to one of the following architectures:

- (i) Concentration : more input lines than output lines [new claim 17]
- (ii) Expansion : more output lines than input lines [new claim 18]
- (iii) Connection : an equal number of input and output lines [new claim 16]

Respectfully submitted,


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